

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:	)	Attorney Docket No. 082669045008
Corral, Bradley R. et al.	)	
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Application No.: 10/750,799	)	
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Filed: January 2, 2004	)	
	)	
For: PRODUCTION LINE BANDING	)	
SYSTEM	)	
	)	
Examiner: Durand, Paul R.	)	
	)	
Art Unit: 3721	)	
	)	
Confirmation No.: 1828	)	

**REMARKS**

New claims 21-24 have been added so that claims 1-24 are now in the application.

Independent claims 1 and 9 have been amended to add another limitation.

Claims 1-6 are rejected under section 103 as being unpatentable over Lewis (U.S. 4,625,635) in view of Cleine et al. (U.S. 5,282,347) and in further view of Hager (U.S. 2,959,118). These rejections are respectfully traversed.

The Lewis reference discloses two feeding mechanisms 34, 34a which feed banding material through two sets of tracks 40, 40a. One feed mechanism and one track are fixed relative to each other, and are positioned opposite the other relatively fixed feed mechanism and track. The feed/track combinations are placed to either side of a product 18 to be banded. Each track is in a fixed position relative to its feeding mechanism and does not move from an adjacent position relative to the feed mechanism to a position away from the feed mechanism. Also, each track is never adjacent the oppositely positioned feed mechanism. Each of the feeding mechanisms is mounted to bases 26, 30 but the feeding mechanisms are not fixed to the bases. Rather, they

move toward and away from the product to be banded. Also, there is no teaching that the banding material is released from the tracks during the time that the tracks are moving from the position shown in Lewis' FIG. 2 to the position shown in Lewis' FIG. 1. Lastly, there is no structure showing that the product to be banded is moved to a position adjacent the feeding mechanism; rather the reference discloses that the feeding mechanism moves adjacent to the product.

The portions of Lewis cited in the Office Action, C1, L43-63 and C2, L29-51, clearly state that there are drive means "to move at least one of the band feeding and knotter means." (C1, L50-51.) There is a limitation in claim 1 that states that the "strapping machine (is) mounted to said support in a fixed position." Furthermore, the tracks come together or are "closely adjacent each other." (C1, L 55-56.) Applicants' claim 1 has the guide element in a position adjacent to the strapping machine and then moving away from the strapping machine. Lewis has the tracks fixed to its adjacent feeder mechanism. There is no disclosure of the track means being adjacent a feeding mechanism and then moving away from that feeding mechanism. It is noted that even though the track is adjacent one feeding mechanism from which it never moves, the track is never adjacent to the opposite feed mechanism. Hence, there are two limitations in claim 1 not disclosed by Lewis.

A third limitation of claim 1 not found in Lewis is that the "guide element releases the band while moving away from said strapping machine."

The Cleine et al. reference discloses a wrapping apparatus in which gate portion 9 swings open to allow insertion of a workpiece 46 to be banded. The workpiece is movable on a trolley 44. The apparatus works by having the gate portion 9 open to allow the receipt of the workpiece 46 to be wrapped. Thereafter, the gate closes and a tape carrying shuttle 15 moves around inner

flange 17 of an oval track to wrap a tape around the workpiece. The Office Action states that the guide 9 moves toward and away from the shuttle 15 (a form of strapping machine). It is noted, however, that the gate 9 does not move "horizontally" between first and second positions. Also, when the gate is moved, there is no teaching that the tape is released from the gate. The gate never holds the tape directly so that it never "releases" the tape. Third, the shuttle is not "mounted to said support in a fixed position," a limitation in claim 1.

The Hager reference illustrates a strapping machine having a movable strap guide 20. However, while movable in a horizontal manner, the guide does so only "so that boxes or packages of different sizes may be accommodated in the opening between them (the stationary strap guide 18 and the movable strap guide 20)." (C2, L34-36.) There is no teaching that during movement of the strap guide 20 banding is released. On the contrary, the strap guide 20 does not move during the actual banding operation.

The Office Action concludes that the Lewis machine could be modified with the delivery mechanism of Cleine and Hager for the purpose of efficiently transporting and strapping and wrapping a load. But, the Lewis, Cleine and Hager references all disclose distinctly different machines operating in distinctly different fashions. There is no teaching, no suggestion, no showing of incentive in any of the references, or knowledge generally available, that they be combined to accomplish what applicants have claimed. The only reason the references are identified is because there is hindsight use of the applicants' disclosure in an attempt to reconstruct individual features of applicants' structure. There is no citation to relevant portions of the references showing a motivation for the proposed substitutions. A prima facie rejection has not been made out.

In addition, even if the three references are combined, there is still no teaching of a guide element movable between two positions where in one position, the guide element guides a dispensed band and during movement between the two positions, the band is released from the guide element.

Regarding claim 2, the Lewis reference states that a band is fed from "its feeding mechanism. . .through its track arm". There is no disclosure that the C-shaped configuration has an open side facing its strapping machine. The contrary is expressly stated in that the guide element receives banding from its strapping machine on the side that is not open.

With regard to claim 3, in Lewis there is no teaching that the banding material escapes from the track arms during movement of those track arms.

With regard to claims 4 and 5, all of the cited references appear to deliver products to be banded or wrapped through horizontal movement. There is no teaching that sprockets are used and no teaching that such sprockets are at different vertical elevations. While it is assumed that vertically oriented sprocket conveying systems are known, there is no objective teaching shown in any reference, nor any general knowledge that such conveyor system ought to be combined with the structure disclosed in Lewis.

In view of the above, the Examiner is respectfully requested to reconsider his rejections of claims 1-6.

Claims 9-20 are rejected under section 103 as being unpatentable over Hager in view of Marovskis et al. (U.S. 5,255,491). These rejections are respectfully traversed.

The Hager reference and its lack of teaching of the limitations in the claim have already been described above. There is no teaching or suggestion of the limitation that the guide element moves "between first and second positions during movement of banding material around product

to be banded." Hager itself states that "strap guide 20 which is adapted to move. . .so that boxes. . .of different sizes may be accommodated in the opening. . . ." (C2, L31-36.)

The Marovskis reference illustrates a conveyor system where crates and a product to fill those crates are moved to a bander 14. The bander 14 dispenses a banding material horizontally rather than vertically as is done in the Hager reference.

Applicants contend that there is no teaching in either the Hager or the Marovskis references to substitute the conveyor system in Marovskis for the horizontal system bringing objects 17 to be banded as disclosed in Hager. Substituting a vertical delivery system for the horizontal delivery system in Hager would not allow the Hager system to operate. Combining Hager and Marovskis is an attempt at constructing applicants' invention using applicants' disclosure as a blueprint. This hindsight reconstruction is improper. There must be some objective teaching in the prior art or knowledge generally that would lead someone skilled in the art to combine the relevant teachings of the references.

In addition, even if combined, the references to Hager and Marovskis do not include the limitation of claim 9 that the guide element moves horizontally between first and second positions "during movement of banding material around product to be banded." Thus, even if combined, the references do not teach the claimed invention.

In the Office Action it is stated in regard to claims 10 and 16 that Hager discloses that the guide element 20 receives a strap in a first position and that the strap is removed as the band [sic] is moved toward a second position." Applicants can find no location in the Hager reference that teaches that the guide 20 moves when the band is removed from the guide. In C2, L29-36, Hager specifically teaches that the guide 20 is adapted to move so that boxes of different sizes may be accommodated in the opening between the guide 20 and the stationary guide 18. There

is nothing stated about moving the guide 20 during movement of the band. If a series of identically sized boxes are to be banded, the guide 20 does not move at all. There is no teaching that the guide moves between positions as part of the actual banding operation during which time the band is being moved around the product to be banded.

Claims 11 and 13 includes the limitation of cradles and "cradles that invert", neither of which is shown in any of the references individually or in any combination.

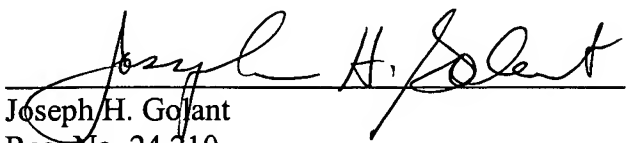
Claim 15 specifically recites the limitation that the strapping machines are tightening bands around the product to be banded at the same time as the guide elements are moving between their first and second positions. This limitation is not disclosed by any of the references either individually or in any combination.

New independent claim 21 includes the same limitation of moving the guide element during banding. Dependent claims 22-24 also include limitations detailing guide movement and the structure and function of the cradles.

In view of the amendments and of the above comments, the Examiner is respectfully requested to reconsider all rejections and indicate allowance and to also consider the new claims and indicate allowance.

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Respectfully submitted,

  
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